

The CLERK read the Report:—
To the Mayor, Aldermen, and Members of the Wisbech Urban District Council.

I again have the honour of submitting to you my annual report for the past twelve months ending December 31st, 1893, together with the records of measures we have taken with a view of stamping out and limiting the spread of infectious and contagious zymotic diseases.

It is with great pleasure that I am able to report to you that the sanitary requirements, as well as the condition of the town, continue to be as well looked after as they have been during the past years, although we have been visited with a very serious outbreak of diphtheria, as well as having in our midst several cases of scarlet fever, still taken as a whole, the town has kept in a very healthy condition, and had it not been for the mortality caused by this terrible disease, the number of deaths in the Borough would have been very few indeed in comparison with former years, and even taking into consideration the fact that several deaths were caused by diphtheria alone, there were still only two more deaths in the town than in the previous year, 1897.

Again at the commencement of the year we shared in common with the surrounding districts a widespread visitation of influenza, not however so severe as in former outbreaks of this disease, still it remained for a considerable time in the town.

The outbreak of diphtheria was far the most serious infectious disease with which we had to deal with during the year, and as you will well remember at one period threatened to assume most dangerous proportions, still with the vigorous use of disinfectants, and the rapid isolation of the cases, we were able to successfully check the malady, and although a few cases have since the summer broken out, they have been of a very mild type and have not caused us much anxiety, until now the town is practically free from the disease. I cannot too deeply regret that the spread of this infection was mainly due to the want of the simplest precautions, friends and relatives being allowed to come in contact with convalescent cases far too soon.

After the detailed reports I sent to you during the year, I need scarcely tell you that disinfectants were liberally used in all cases, as well as the drains thoroughly disinfected. During the year 56 cases were reported to me, and we have to deplore the deaths of 15 of these cases.

Scarlet fever this year was much less prevalent than in the previous year, only 18 cases coming to my knowledge, and no deaths were recorded as due to this disease. The cases were of a mild nature, and did not give any serious anxiety.

Measles and whooping cough were almost entirely absent, and I again am able to report that only five cases of erysipelas and three cases of typhoid fever were seen in the town. In one of these cases I found it was imported, and was of a very severe nature, quickly causing the death of its victim. The other two cases were idiopathic, and of a very mild character. In every case a liberal supply of disinfectants was used, in most cases directly under the supervision of the inspector, who spared no trouble in carrying out my instructions. During the year I have visited from time to time the various parts of the town, and the various buildings, which continue to be well kept and carefully looked after. The condition of the main and other sewers continue to work in a very satisfactory way, and have caused practically no complaint, the ventilation being of great value. Although at the Old Toll Corner on Lynn-road is not a terminal end, the addition of an extra ventilator here would undoubtedly be the means of removing the offensive escape of sewer gas at this point of the main sewer.

I greatly regret that as yet no steps have been taken with a view to the erection of a much more substantially brick-built Isolation Hospital, which is so urgently needed. During the year the number of births were 219, being six more than last year. Of these 106 were males and 113 females, giving a birth-rate of 23.2 per 1,000.

The number of deaths registered in the town were 152, being a diminution of five from the number last year. As well as these, there were 30 deaths in the Workhouse, 12 in the North Cambridgeshire Hospital, and 11 in the Fever Hospital, the general death-rate for the town being 15 per 1,000, whilst the infantile death-rate was 3.3 per 1,000.

Deaths from pulmonary and heart affections were 39 in number, and of these 14 were due to phthisis, 15 to bronchitis, pneumonia, and pleurisy, and 10 to heart disease.

In the Workhouse bronchitis caused three, and heart disease six deaths.

In the town the deaths under one year were 31; over one year and under five years, 8; over five years and under 15 years, 12; over 15 years and under 25 years, 2; over 25 years and under 65 years, 29; over 65 years, 70.

In the Workhouse, between the ages of 15 years and 25 years, 1; over 25 years and under 65 years, 8; over 65 years, 21.

In the Hospital, between the ages of five years and 15 years, 3; over 15 years and under 25 years, 3; over 25 years and under 65 years, 4.

Herewith I beg to hand you the tabular statements of births, sickness, and mortality for this period.

I remain, Gentlemen,

Yours faithfully,

HARRY GROOM, M.D.

Medical Officer of Health.

Tithes	...	10	0	
Clerk's salary	...	2	4	0
Tradesmen's Bill	...	0	12	0
Stamps, Stationery and Advertisement...	...	0	10	0
Attending Rent Audit, use of Room, Horse hire ...	...	14	10	6½
Balance in Bank	...	12	8	3½
				<hr/> £84 18 10

EDWARD S. OLDHAM, Chairman.

Announcements.

BELLARS

Season, 1899.

Showing

LLINERY

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S. BELLARS

18, MARKET PLACE.

MEDICAL OFFICERS' REPORT.
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REPORT FOR THE YEAR 1898

OF

DR. RAILTON,

MEDICAL OFFICER OF HEALTH

TO THE

Urban District Council of Withington.



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REPORT

UPON THE

Urban District Council of Withington

FOR THE YEAR 1898.

I.

Tabular Statement of the Mortality within the district, classified according to diseases, ages and localities.

During the year 1898 the number of deaths registered as having occurred in the district, not including the Chorlton Union Workhouse, was 356, and the number of births 593. To the above number of deaths must be added 25 in the Workhouse among persons admitted from within the district, and six which occurred outside the district*, making a total of 387 deaths. Assuming the population in the middle of 1898 to have been 30,000, being seven-tenths of the increase between 1881 and 1891 added to the ascertained population at the census of the latter year, the general death-rate is calculated to be 12·8, and the birth-rate to be 19·7. This population however, is probably somewhat under-estimated.

When these rates are compared with the corresponding figures of the previous ten years as in Table I., it is seen that the death-rate of last year is slightly higher than it has been since 1894, though lower than in any of the preceding years between 1888 and 1893 inclusive.

* Five deaths occurred in the Monsall Fever Hospital among patients belonging to the Withington district, and one death took place from drowning in the river at Northenden, Cheshire, in the person of a female from Withington.

The birth-rate is lower than it has been any time during the past decade.

TABLE I. *

<i>Comparison of the death-rates and birth-rates from 1888 to 1898.</i>											
	1888	1889	1890	1891 Census	1892	1893	1894	1895	1896	1897	1898
Estimated population...	21,426	22,284	23,142	24,000	24,700	25,400	26,100	26,800	27,500	28,200	30,000
Total number of deaths ...	281	328	311	363	340	330	284	329	315	335	387
Annual death-rates	13'1	14'2	13'4	15'0	13'7	12'9	10'8	12'2	11'4	11'8	12'8
Total number of births.....	503	547	484	548	540	548	542	577	602	658	593
Annual birth-rates	23'4	24'5	20'9	22'8	21'8	21'5	20'7	21'5	21'5	23'3	19'7

Of the deaths, 209 were in males and 178 in females. Of the births, 294 were males and 299 females.

Table II. shows the ages at which the 387 deaths occurred, classified in "age groups."

TABLE II.

<i>Table of the ages at which the deaths occurred in 1895, 1896, 1897 and 1898.</i>				
	1895	1896	1897	1898
Under 1 year of age	69	67	63	82
Between 1 year and 5 years	17	31	27	37
Between 5 and 15 years	6	7	14	16
Between 15 and 25 years	15	16	14	18
Between 25 and 65 years	120	119	126	132
Over 65 years of age	102	75	91	102

* In this and many of the following tables corresponding figures of previous years are given, so as to afford a means of comparison.

It is to be observed in this table that the deaths under one year, and also those between one and five, are rather more, relatively to the total number of deaths, than they were in 1897. In the latter year they formed respectively 18·8 and 8 per cent. of the whole; in 1898 the corresponding figures are 21·5 and 9 per cent., and if we view the number of deaths under one year in their relation to the number of births, we find that the mortality in infants compares rather unfavourably with the rates of the preceding 10 years, as seen in Table III.

The infantile mortality throughout England varies from 8 per cent. under very healthy conditions in the country to 30 per cent. in the more densely-populated and poorer localities of manufacturing towns, so that it will be seen that the death-rate under one year is not a very bad one in the Withington District, but we shall deal with the matter more fully in considering Table IV.

TABLE III.

<i>Percentage of deaths under one year to births.</i>										
1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898
10·0	12·0	13·0	10·0	12·0	15·0	9·0	11·9	11·1	9·5	13·8

The other age-groups of Table II. do not strike one as being out of the common, if it be remembered that the population is steadily increasing; the two which seem to present an increase compared with 1897—viz., those of 25 to 65, and over 65 years of age—are actually smaller in proportion to the total number of deaths than in the previous year. Thus, in 1897, the deaths between 25 and 65 years of age formed 37 per cent. of the total number of deaths, and the deaths over 65 years 27 per cent. In 1898 the corresponding figures were 34 and 26 per cent.

In Table IV. is given a classified statement of the various causes of death in infants under one year, with the corresponding figures of 1897.

TABLE IV.

<i>Causes of death under one year of age.</i>		
	1898	Corre- sponding figures for 1897
I. Pulmonary diseases. Bronchitis, &c.....	16	13
II. Infectious diseases. { Measles 2 } { Whooping cough 2 } { Influenza 1 } { Tuberculosis 4 }	9	11
III. Diet diseases { Diarrhoea 9 } { Wasting and gastro- intestinal catarrh.....16 } { Convulsions 8 }	33	20
IV. Congenital diseases. { Premature birth and debility .....18 } { Spina bifida..... 1 }	19	11
V. Other causes { Suffocation in bed 1 } { Not classified 4 }	5	8
	<hr/> 82	<hr/> 63

The first group in this table shows the number of deaths from diseases of the lungs to be slightly smaller in proportion to the total number of deaths at this age than in 1897. It is not, however, exaggerating to say that most of them might have been avoided had proper care of the infants been shown by those in charge of them. It is astonishing to see mothers carrying their infants a few months old, in the bleakest weather, on visits to friends' houses, from whence they return home quite late in the evenings. It is evidently not realised by these persons that in early childhood, and especially during the first year of life, bronchitis and broncho-pneumonia are most serious and often fatal diseases, and that exposure to cold is almost invariably the cause.

In the second group will be noticed four deaths from tuberculosis. Of these, two were of the intestinal form known as "tabes mesenterica." We have good reasons for associating this disease with the cow's milk upon which the infant has been fed,

and it is a very serious matter to consider that while deaths from other forms of tuberculosis or "consumption" are gradually lessening in number, owing to improved sanitation, this milk-caused disease remains stationary. The Withington Council is, however, taking very decided action with the object of improving the sanitary condition of the cowsheds throughout the district, and thus diminishing the disease in cattle. (See Section IV.)

The third group comprises under the title of "diet diseases" diarrhœa, wasting, &c., and convulsions, the first of these being retained in the class, although it is admitted that the essential cause of the disease in its acute form is some micro-organism capable of producing a poison in food when it finds itself under favourable conditions, such as the hot weather which prevailed in September. It is a suggestive fact that every death from diarrhœa during the year at this age occurred in houses of low rental, the suggestion being that most, if not all, of these infants were fed either on the bottle or at all events under circumstances not calculated to keep their food free from the germs just mentioned. One may be sure that had these infants been fed properly some of the lives in this group might have been spared.

The fourth group hardly seems to call for special remark. The number of prematurely born or congenitally feeble infants must always be considerable. No doubt the occupations, constitutions, and habits of the parents have much to do with it.

The fifth group contains one death which requires comment: that from suffocation in bed. No less than ten deaths from this cause have been reported in the district during the past six years. It is lamentable that carelessness should occasion so many deaths in this manner.

Of the 82 deaths under one year, 38 were in infants under three months old, 15 were between three months and six months, and 29 were between six months and one year.

They were distributed among the four townships in the following manner:—Withington 32, inclusive of five which occurred in the Workhouse among infants belonging to the

district; this with 225 births gives an infantile death-rate of 14·2 per cent; Didsbury, with 17 deaths and 143 births, has a corresponding death-rate of 11·8 per cent.; in Chorlton-cum-Hardy, with 24 deaths and 157 births, it is 15·2 per cent.; and in Burnage, with 9 deaths and 68 births, it is 13·2.

TABLE V.

<i>Comparison of the infantile death-rates in the four townships, 1895 to 1898.</i>				
TOWNSHIPS	1895	1896	1897	1898
Withington	14·0	12·0	9·2	14·2
Didsbury	10·0	9·6	8·1	11·8
Chorlton-cum-Hardy	9·0	9·0	8·4	15·2
Burnage	14·0	14·8	16·5	13·2

This table (Table V.) shows that with the exception of Burnage, in which township some slight improvement is manifested, the infantile death-rates throughout the district are decidedly larger than they have been in any of the previous three years.

The next table (Table VI.) gives the causes of death under the age of five years, and is inclusive, therefore, of those deaths we have already considered in Table IV.

The two deaths mentioned in this table as resulting from scarlet fever took place in Monsall Hospital; six deaths occurred in the Chorlton Union Workhouse, one of them from scrofulous disease; the other five, being in children under one year, have already been dealt with. Whooping cough and diarrhœa stand prominently forward as the most fatal among the “zymotic” diseases of the year. This table also shows how great a mortality has taken place during the ten years given from the former disease—no less than five per cent. of the total number of deaths during that period. It is one of the most absolutely infectious diseases

TABLE VI.

<i>Deaths throughout the district in children under five years of age, from 1889 to 1898.</i>										
NAME OF DISEASE	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898
Measles	5	6	1	5	...	7	5	1	11	2
Scarlet fever	1	1	2	...	2	...	...	...	...	2
Diphtheria	5	2	1	...	1	...	...	...	...	2
Croup .....	...	1	...	...	1	...	...	3	...	2
Whooping cough	7	3	7	10	3	1	2	9	4	5
Enteric fever .....	...	...	...	...	...	...	1	...	...	...
Typhus fever .....	...	...	...	...	...	...	...	...	...	...
Other or doubtful fevers	...	...	...	...	...	...	...	...	...	...
Diarrhœa	12	11	2	4	17	...	14	6	8	12
Influenza .....	...	...	...	...	1	...	1	...	2	3
Bronchitis, pneumonia, and pleurisy	17	14	20	27	17	11	13	23	14	19
Diseases not classified...	62	56	67	54	63	51	50	56	51	72
Total	109	94	100	100	105	70	86	98	90	119

known ; anyone, not protected by a previous attack, coming into sufficiently close contact with a patient suffering from the disease almost inevitably takes it.

The majority of the fatal cases of diarrhœa occurred in September and October, and nine of them were under one year, as already seen.

Of the 19 deaths from pulmonary diseases, 16 occurred in infants under one year. This fact affords a useful commentary upon the observations made with regard to the susceptibility of infants to cold.

54 of the 119 deaths belonged to the township of Withington, 24 to Didsbury, 31 to Chorlton-cum-Hardy, and 10 to Burnage. The respective death-rates per thousand of the estimated populations of the townships are shown in the following table (Table VII.):—

TABLE VII.

<i>Death-rates per thousand of the population of the different townships in children under five years of age in 1898, compared with those of 1881 and 1891 (Census years).</i>			
TOWNSHIPS	1881	1891	1898
Withington.....	3·7	4·6	4·3
Didsbury	3·4	2·4	2·7
Chorlton-cum-Hardy	5·1	4·1	4·5
Burnage	1·1	8·6	4·6

The mortality under five years of age is seen in this table to be very similar to that of the last census year in the first three townships, and in Burnage there is a very great improvement. It will be observed that Didsbury still retains the position of having the lowest death-rate in this age-group.

In Table VIII. are classified the causes of the deaths at all ages which occurred within the district during the year. These figures include the 25 already mentioned as having occurred in the Workhouse among persons belonging to the district, and the six deaths which took place outside the boundaries. (See page 3 in footnote.)

Of this table, the chief feature is the very large number of deaths from influenza. The deaths from diarrhoea occupy the second position in point of numbers, but all the cases having occurred in children under five years of age, with the exception of one, we have already dealt with the matter.

TABLE VIII.

Deaths throughout the district in persons at all ages, from 1889 to 1898.

DISEASES	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898
Smallpox.....	...	...	...	...	...	...	...	...	...	...
Measles	5	6	1	5	...	9	5	1	11	2
Scarlet fever	2	2	3	...	3	...	2	1	2	5
{ Diphtheria	14	4	2	...	5	1	...	...	1	3
{ Membranous Croup. ....	...	1	...	...	1	1	...	4	1	2
{ Whooping cough	7	3	7	10	4	1	2	10	5	5
{ Typhus fever .....	...	...	...	...	...	...	...	...	...	...
{ Enteric fever	4	2	...	4	4	1	2	2	...	4
{ Other or doubtful fevers .....	...	...	...	...	...	...	...	...	...	...
Diarrhœa	12	13	3	4	18	1	14	6	10	13
Influenza .....	...	...	...	...	6	4	12	10	13	16
Rheumatic fever.....	...	2	2	2	...	1	2	2	3	4
Erysipelas ... ..	...	1	1	2	...	...	1	...	1	...
Puerperal fever	1	...	...	1	2	1	...	...	...	1
Phthisis	28	28	34	23	24	25	27	25	23	25
Bronchitis, pneumonia, and pleurisy.....	53	73	88	84	51	47	53	69	51	54
Heart disease	24	20	31	15	26	24	22	23	36	25
Injuries	13	10	6	16	12	13	9	11	10	19
Other diseases not classified	155	146	185	174	174	155	178	151	168	209
Total number of deaths	318	311	363	340	330	284	329	315	335	387

The remainder of the deaths from zymotic disease will be dealt with fully in the second section of this report.

The deaths from bronchitis, pneumonia and pleurisy form 14 per cent. of the total number of deaths, compared with 15 per cent. in 1897 and 20 per cent in 1896.

Deaths from heart disease are less in actual number, as well as in relative proportion to the total, than in 1897. This year they form 6 per cent. of the whole, in 1897 they formed 10 per cent., and in 1896, 7 per cent.

In Table IX. we have a comparison between the general and zymotic death-rates (the ten diseases bracketed at the head of Table VIII.) of the four townships.

TABLE IX.

Township	Estimated Population	Total number of deaths	General death-rate	Deaths from zymotic diseases	Zymotic death-rate
Withington {	1898 12,408	175	14·1	19	1·5
{	1897 11,686	134	11·4	16	1·3
Didsbury {	1898 8,707	96	11·0	10	1·1
{	1897 8,479	84	9·9	9	1·0
Chorlton-cum- {	1898 6,752	88	13·0	4	0·5
Hardy..... {	1897 6,032	65	10·7	14	2·3
Burnage..... {	1898 2,133	28	13·1	1	0·4
{	1897 2,003	25	12·4	1	0·4

Both the general and the zymotic death-rates of Withington are higher than in any of the other townships. This is accounted for by the fact that all the fatal cases of whooping cough occurred there, that all the cases of fever which proved fatal at Monsall Hospital, viz., four cases of scarlet fever, and one case of enteric fever, were in patients belonging to Withington, and that nearly two-thirds of the deaths from diarrhœa took place in that township.

The zymotic death-rate for the whole district is 1·1, compared with 1·3 in 1897.

The death-rates for the various zymotic diseases are as follows :—

		Corresponding figures for the whole of England in 1896.
Scarlet Fever.....	0·16 per thousand	... 0·18
Diphtheria.....	0·1 ,,	... 0·29
Measles	0·06 ,,	... 0·56
Whooping Cough ...	0·16 ,,	... 0·41
Fever.....	0·13 ,,	... 0·17
Diarrhœa	0·43 ,,	... 0·55

II.

A Summary of the action taken during the year for preventing the spread of disease.

Smallpox.—No cases of smallpox were reported in 1898.

As a result of the Vaccination Act, 1898, a vast number of certificates of exemption have been issued to conscientious objectors to vaccination. It is estimated that up to the end of the year no less than 275,000 children have been thus exempted. It is true that in Manchester very few objectors have taken advantage of the Act, but as in other towns only a short distance away the inhabitants have done so in large numbers—notably Oldham, with 27,000 objectors—it is extremely probable that cases may arise in the Withington District which have been contracted in other localities. For this reason it is desirable that the inhabitants of the district should be prepared by vaccination or re-vaccination to resist the disease, and also that an isolation hospital should be provided for the reception of smallpox cases. There is however, no cause for alarm in the present state of affairs for those who are sufficiently wise to thus protect themselves, for smallpox is the most preventible of all infectious diseases. If vaccination in early infancy were successfully performed, and re-vaccination were universally practised on the attainment of 15 or 20 years of age, smallpox would become one of the rarest and mildest of diseases, and deaths from it would be practically unknown.

Measles.—During the past year this disease has been withdrawn, with the approval of the Local Government Board, from the operation of the Infectious Disease (Notification) Act, 1889, the Council having decided to rely in future upon the authorities of schools, both public and private, and the school attendance officer, for the notification of cases of measles and whooping cough.

Regulations have been drawn up so that upon information of the existence of a case of either of these diseases, the Inspector of Nuisances will visit the house and leave printed precautions, according to the nature of the case, and will call again at frequent

intervals, if a doctor be not in attendance, to ensure their observance. The Inspector will also seek for clues of other cases at the patient's house and at the school and will follow them up. The authorities of the day and Sunday schools concerned will be warned and printed precautions will be distributed in the neighbouring houses. When five or more cases occur in connection with any public school, a letter will be sent to the authorities asking the following questions :—

What is the average attendance in each department?

What is the present attendance in each department?

What number of children are known to be suffering from the disease?

What number of children are absent owing to the disease existing in their homes?

When the number of actual cases of measles or whooping cough exceeds ten per cent. of the average attendance in any department of the school, that particular department will be closed unless some special reason to the contrary exists, and the authorities of the Sunday school, if one be held in the building, will be recommended to close it also.

The formal closing of a public school is effected on the order of two members of the Withington Council.

There has been no epidemic of measles during the year, and in the comparatively few cases which have occurred (42 cases so far as I am aware) the schools have not appeared to act as centres for the spread of the disease, and it has therefore not been necessary to recommend the closing of any of them.

Scarlet Fever.—The district has never been entirely free from this disease during the year, with the exception of the month of December, but the number of cases has been comparatively inconsiderable—in fact there has been no one of the past five years with so favourable a record.

The township of Didsbury, as in 1897, has suffered the most, the fever being present more or less during the first six months of

TABLE X.
Cases of scarlet fever in 1898.

	Withington	Didsbury	Chorlton-cum-Hardy	Burnage	Totals	Number removed to Hospital
January	2	12	...	...	14	11
February .....	...	2	...	...	2	2
March .....	...	3	1	...	4	3
April .....	...	2	6	...	8	2
May	4	6	2	...	12	3
June.....	...	2	2	...	4	2
July .....	...	...	1	...	1	...
August.....	...	2	...	...	2	2
September	2	5	...	...	7	4
October	6	1	...	...	7	3
November	9	...	...	...	9	8
December .....	...	...	...	...	...	...
	23	35	12	...	70	40

the year. In January there were several instances of exposure of patients in public in this locality while they were in an infectious condition, and although the evil was remedied so far as possible by the removal of the patients to hospital as soon as they were discovered, serious effects were thereby occasioned. Thus two children living at a farm just outside the district contracted the fever, in all probability, at a shop in Didsbury, where a boy was allowed to go about while peeling, and one of the two died. In another instance a girl who commenced with the disease on December 20th, 1897, was allowed to be present at a tea party in a schoolroom on December 27th, and the case not being notified to the sanitary authority until January 8th, she was not removed to hospital until that date. The Council, in order to put a stop to the practice, took legal proceedings in the case of a girl allowed to attend school while she was peeling, and the parents were fined 20 shillings and costs.

In November (between the 14th and the 23rd) a group of nine cases of scarlet fever occurred in Withington, eight of which were promptly removed to Monsall Hospital. Although the utmost care was exercised in searching for the origin of these cases, which were all situated within a small area, and although a strong suspicion existed that some child was going about that neighbourhood while in an infectious state, I was unable to find the offender. As some of the patients attended the infants' department of St. Paul's School, Withington, with the permission of the authorities, I examined every child in the school, but without discovering anyone whom I considered to have been recently suffering from scarlet fever. One of the nine cases arose in the house of a milk seller, and as soon as the fact became known the milk upon the premises was destroyed, the cans and other vessels were scalded, the members of the family connected with the trade left the house and went to live elsewhere, and their clothes were stoved. The business was carried on at some distance away until the house had been thoroughly disinfected, and no case arose amongst the customers from the use of the milk. I am sorry to have to add that three of the eight cases removed to hospital died there. A fourth fatal case, removed in September, also from Withington, died in the hospital. The only death from scarlet fever which actually occurred in the district took place in Didsbury in January. In no instance were either the milk supply or the schools responsible for the spread of the fever during the year.

The number of patients removed to hospital during the year amounted to 57 per cent. of the whole, compared with 65 per cent. in 1897 and 54 per cent. in 1896. The mortality of the cases, taking the four fatal cases in Monsall Hospital and the one death in the district, amounts to 7 per cent., compared with 5·6 per cent. in 1897.

Immediately after the notification of a case of scarlet fever, printed precautions have been dispatched to the householder; all schools and the laundry connected with the case, have been informed of its existence; the sanitary condition of the house has

been investigated; the milk supply enquired into; and, at the termination of the case, or upon removal to hospital, the premises, etc., have been thoroughly disinfected by fumigating the room with euchlorine, stripping off the paper and limewashing the walls, and by stoving the bedding.

Diphtheria and Membranous Croup.—Twenty-two cases of diphtheria were notified during the year, distributed, as to time and place, as shown in Table XI. Eight of these cases were

TABLE XI.
Cases of diphtheria in 1898.

	Withington	Didsbury	Chorlton-cum-Hardy	Burnage	Totals	Number removed to Hospital
January
February	3	2	...	5	...
March	2	...	...	2	...
April
May	1	...	...	1	1
June.....	...	3	...	...	3	1
July	1	...	...	1	...
August.....	1	...	1	...
September
October	2	...	2	...
November	2	...	2	...
December	1	1	3	...	5	2
	1	11	10	...	22	4

verified by bacteriological examination. The secretions from the throats of nine other suspicious cases were submitted to the test, but without the diphtheria bacillus being found. Total, 17 tests, compared with 28 in 1897. In 14 instances no test was made. Three of the cases of diphtheria, all of them occurring in Didsbury, proved fatal. Four cases were removed to hospital, and recovered.

In the house in which two of the cases of diphtheria occurred, one of which proved fatal, most surprising carelessness was shown by those in charge of the patients. At the time of visiting the premises the mother was found by me sitting with one of the patients in her arms in the front room surrounded by no less than eight other persons, and this dangerous proceeding was carried out after she had been specially warned by her medical attendant as to isolation.

Only two cases of membranous croup were reported during the year. Both occurred in the township of Didsbury, one in March and one in May. They have already appeared in Table VI. As regards disinfection, the procedure after a case of diphtheria or croup has been exactly the same as described in the section devoted to scarlet fever.

Whooping cough.—Five deaths occurred during the year from this disease, which prevailed considerably in some parts of the district in the spring. No other cases were reported.

Enteric fever.—As is to be seen in Table XII., cases of enteric fever have been more than usually numerous during the year, especially in the autumn. The relation between intense summer heat and the prevalence of enteric fever is well known, and the hot and dry weather experienced towards the close of last summer was quite sufficient to account for the increased number of cases. Defective drains and sewer gas are often suspected of being the cause of attacks of enteric fever, and perhaps occasionally act as such, but it appears to me that houses in which the fever has never been known to occur are hardly likely to have the germs of the disease in their drains, and that it is much more probable

TABLE XII.

Cases of enteric fever in 1898.

	Withington	Didsbury	Chorlton- cum-Hardy	Burnage	Totals	Number removed to Hospital
January	2	...	...	...	2	1
February .....	...	...	...	...	...	...
March .....	...	...	1	...	1	...
April.....	...	1	...	...	1	...
May .....	...	...	...	...	...	...
June.....	...	...	...	...	...	...
July .....	...	...	...	...	...	...
August	1	1	1	...	3	1
September	1	2	1	...	4	2
October	3	3	...	...	6	4
November	4	2	...	...	6	2
December .....	...	2	...	...	2	2
	11	11	3	...	25	* 12

when a case arises that the fever has been acquired by swallowing infected water, milk, foods, or dust containing the germs. As the germs are capable of independent existence in the soil, and develop more readily in hot than in cold weather, the last condition does not appear very impossible when we consider the amount of dust prevailing at such a time.

* Two of these cases were removed by their Medical Attendant to the Chorlton Union Hospital.

In spite, however, of the unlikelihood of insanitary arrangements having been the actual cause of the fever, the houses in which it has occurred have been submitted in all cases to a very searching investigation, and where defects have been found, notices have been issued to remedy them, for it is not to be disputed that insanitary conditions operate as predisposing causes to disease by lowering the resisting power of the body.

The number of cases of enteric fever reported in 1897 was 10; in 1896, 10; in 1895, 20; in 1894, 13; in 1893, 16; and in 1892, 17.

Five cases out of the twenty-five appear to have been contracted outside the district: thus, one patient commenced to be ill the day after he returned home from Lincolnshire, where he had been staying for three months; a second began three days after her return from Derbyshire, where she had been for a ten days' holiday; a third had been travelling in Ireland, the Isle of Man, and Scotland, and commenced to be ill two days before he returned home; in the fourth case the patient began to be ill two days after his arrival in the district from New York; and in the fifth the patient came into the district on a visit from her home in Ireland, and developed symptoms of the fever on the very day she arrived.

There was a group of five cases occurring in Didsbury in the autumn, which appeared to be linked together by a common cause. They were investigated with care, but without much success. The five cases arose in four houses, situated very near each other. They had not all the same milk supply, nor did the families visit one another. One patient began on September 7th, the second on October 5th, the third on October 7th, the fourth on October 9th, and the last on November 5th. It looked extremely like infection conveyed from the first to the other patients, but I failed to elicit any information in support of this. The drains of the houses were examined under the Public Health Act, 1875, Sect. 41, and were found to be defective, and notices were accordingly issued to relay them with cemented joints so

far as the drains in the back-yards were concerned, and to remove them entirely from within the cellars in the instances in which they were found there. The privy ashpits also required alteration.

Special pails have been supplied for the evacuations of all patients suffering from enteric fever, the contents being burnt weekly at the destructor ; and, on request, pails have also been supplied in doubtful cases of illness before a diagnosis has been possible.

At the end of each case the ashpits and water-closets have been washed down with a solution of corrosive sublimate, and the bedding, if soiled, has been stoved.

The arrangement with the Pathological and Bacteriological Laboratories of the Owens College for the examination of the blood in suspected cases of enteric fever, which was completed in December, 1897, has proved very serviceable. During the year the test has been applied twenty-one times, with the following results :—In thirteen cases the diagnosis was confirmed, in the remaining eight the reaction did not take place. In eleven instances no test was made.

Three fatal cases of this fever took place in the district, one in each of the following townships—Withington, Didsbury, and Chorlton-cum-Hardy ; and one also occurred in Monsall Fever Hospital, in the case of a patient admitted from Withington.

Diarrhœa.—Of the thirteen deaths from this disease, twelve occurred in children under five years of age, nine of whom were less than one year old, as seen in Tables IV. and VI. No other cases came to my knowledge.

Erysipelas.—Ten cases of erysipelas were reported during the year : three of these were in Withington, four in Didsbury, and three in Chorlton-cum-Hardy. None of them proved fatal. In one instance a midwife was in attendance upon the patient, and she was accordingly instructed to disinfect her clothes thoroughly by boiling before she attended any other patient.

Puerperal fever.—Two cases of puerperal fever were reported during the year, both in Chorlton-cum-Hardy.

Procedure after cases of fever.—As usual the houses in which any infectious fevers occurred have been thoroughly examined as to their sanitary condition, and where defects existed notices have been issued to remedy them. Full notes have been taken with regard to the probable source of the disease: the schools, milk supply, laundry, &c. Printed precautions have been provided in each case to the householder, the school authorities and laundries have been warned, and the milk dealers' premises inspected when necessary.

Removal to hospital.—A smaller number of patients have been removed to Monsall Hospital during the year than in 1897, but the fact is accounted for by the lesser number of cases which have arisen.

Patients removed to hospital:—

To Monsall Hospital.		To Chorlton Union Hospital.	
Scarlet fever	40	Enteric fever	2
Diphtheria	4		
Enteric fever	10		
	<hr/>		<hr/>
	54		2
	<hr/>		<hr/>

Disinfection.—The number of houses disinfected after infectious fevers in 1898 amounted to 97. The total number of articles stoved by the Manchester Corporation on behalf of the Council was 2,706, and consisted of the following:—Beds, 156; mattresses, 174; pillows, 436; blankets, 300; counterpanes, 113; carpets, 213; various articles of clothing, 923; and sundries, 391.

III.

An account of the sanitary state of the district generally at the end of the year.

Zymotic disease.—No case of scarlet fever has been notified in the district since December 23rd, 1898, and at the time of writing there is actually no case in existence. There is one case of diphtheria and one of enteric fever in progress, the first in Withington and the second in Didsbury, but with these exceptions the district is entirely free from zymotic disease, and all disinfections standing over from last year have been carried out.

Water supply.—The pumps in the outlying parts of the district have been receiving a considerable amount of attention during the year, and seventeen analyses of the water have been carried out. This number includes thirteen pumps, as several have had their water analysed more than once. In nine instances the water has been definitely condemned, and in four of them Manchester water has already been substituted. In the other five cases the question of the water supply is still being considered by the owners of the properties, who have received notice to provide water of a better quality.

Drainage of the district.—The difficulty of draining the properties standing at the outskirts of the district has not yet been surmounted. With regard to the properties in Burnage Lane, Didsbury, mentioned in the report for 1897, as the Local Government Board has been unable to sanction the arrangement with the Heaton Norris Urban District Council, whereby the sewer belonging to that authority might have been utilized to receive their drainage, the Withington Council is compelled to require these houses to be drained to cesspools, having their overflows ending in the streams. In other parts of the district the same condition of affairs exists, and although all the cesspools are now emptied by the Council every three months, it is impossible to ensure that they shall not pollute the streams. A list of about forty such cesspools, existing in various parts of the district, has

been drawn up. It was calculated five or six years ago that some two hundred houses, containing about a thousand residents, were being drained into these cesspools or directly into the streams; and it was hoped that a large proportion of these houses, about eighty in number, would have been accommodated by the proposed arrangement with the Heaton Norris Council as mentioned above.

Building in the district during the year.—Building operations have been proceeding very extensively during the past year, no less than 402 houses having been certified by the Surveyor of the Council as being fit for occupation. The greatest activity has been shown in the townships of Withington (including Whalley Range) and Chorlton-cum-Hardy.* The drainage of these new houses is strictly supervised by the Inspector appointed for the purpose, all the drains being submitted to the water-test before being passed.

Hospital for infectious fevers.—Considerable progress has been made in the scheme for building an isolation hospital at Baguley upon the site acquired by the Council for that purpose. The plans have been submitted and approved, and it is hoped that very shortly the actual work of building may be commenced. This hospital is intended for the reception of cases of enteric fever, scarlet fever, and diphtheria, but it will not be available for cases of smallpox. Provision for the latter will have to be made elsewhere, and this important matter is already receiving the attention of the Council.

* Withington, 171; Chorlton-cum-Hardy, 152; Didsbury, 66; and Burnage, 13—total, 402.

IV.

An account of the enquiries made by the Officer of Health as to conditions injurious to health existing in the district, and of the proceedings relating to such conditions, in which he has taken part or advised under the Public Health Act, 1875

The inspection of houses and other premises as regards their sanitary condition has been actively carried on during the year, as may be gathered from the summary below.

The supervision of sanitary alterations which is given to all work done, whether under notice or upon recommendation, is much stricter than formerly, and the quality of the work now carried out is consequently better. All drains are laid with cemented joints, and are submitted to the water-test before they are passed.

An effort is being made to minimise the offensiveness of the privy-ashpits by causing their floors to be raised to the ground level, and flagging them with cemented joints. This diminution in cubic capacity no doubt entails the more frequent emptying of the ashpits, but the increased cost thereby incurred is amply repaid by the improvement in the sanitary condition of the houses to which these ashpits belong.

As regards privy-ashpits actually built up against the houses, very few of these now exist in the district. They have been steadily diminishing in number for some years, owing to the action of the Council in requiring in these cases the substitution of water-closets for the privies, and the raising of the floors of the ashpits and flagging them, for the reception of dry refuse only. Where it has been possible, the ashpits have been done away with altogether, and galvanized iron receptacles have been provided in their place. This plan has the double advantage of preventing any further pollution of the soil in the neighbourhood of the houses, and of increasing the facility for the removal of the refuse from the premises.

In other instances in which the privy-ashpits, although not actually in contact with houses, were very near them, and by their aggregation were rendering the back-yards and passages offensive and injurious to health, notices have been issued to convert the privies into water-closets.

Altogether during the year, notices have been served upon owners to substitute water-closets for privies in 125 instances, and when these notices have all been complied with, the result will be a great improvement in the sanitary condition of several closely-built blocks of property.

Summary of action of the Health Committee during the year.

Notices served for the alteration of insanitary properties	222
Insanitary properties altered without notices	44
Notices, etc., on account of filthy premises	7
Notices under Dairies and Cowsheds Orders	28
Notices to enter premises under section 41 of the Public Health Act	14
Notices, etc., on account of injurious and foul accumulations :	
Nightsoil tips	2
Manure heaps	7
Other injurious accumulations...	1
Notices, etc., on account of animals kept so as to be a nuisance...	1
Notices, etc., on account of overcrowding	1
Notice, etc., in connection with slaughter-houses	1
Notices, etc., in connection with the sewers	3
Notices, etc., in connection with stables	7
Notices, &c., on account of filthy streams	5
Premises inspected as to their sanitary condition after cases of infectious fever	112
Premises smoke-tested...	24
Premises inspected, but no action required	8
Back passage reported, and referred to the Highways Committee	1
Inspection of grave at Chorlton-cum-Hardy Parish Church...	1
Water analyses	17
Milk analyses...	17
Butter analyses	4
Legal proceedings on account of insanitary properties—order and costs (£6 16s. 6d.)	5
Legal proceedings on account of exposure after scarlet fever—fine and costs (£1 4s. 6d.)	1
Food seized and destroyed as unsound and unwholesome—geese...	10

There were actually 283 notices served for the improvement of insanitary properties, but of these, 54 were duplicates—issued a second time in consequence of non-compliance—and seven were issued in connection with stables (to remove drains from within, etc.). The 222 notices had reference to 688 buildings, viz., 673 houses and 15 farms.

Under the Dairies and Cowsheds Orders there were 42 notices issued, 14 being duplicates.

The inspection of an earthen grave at Chorlton-cum-Hardy Parish Church resulted in the interment being sanctioned.

There are no offensive trades carried on in the district.

When premises have been reported to the Sanitary Authority by Her Majesty's Inspector of Factories they have been duly inspected and notices have been issued when required to remedy any sanitary defects. All premises also not previously registered which have been opened as factories or workshops have been reported to him from time to time, as they have come to the knowledge of the Council.

*Particulars as regards milk sellers, bakehouses,
slaughter-houses, etc.*

Registered milk sellers in the district	...	...	...	...	...	...	...	...	...	115
Registered cowkeepers	...	...	...	...	...	...	...	...	...	46
Cowsheds	...	...	...	...	...	...	...	...	...	74
Number of bakehouses (W 8, D 9, C 11)	...	...	...	...	...	...	...	...	...	28
Number of slaughter-houses (W 2, D 2, C 1)	...	...	...	...	...	...	...	...	...	5

(The slaughter-house in Chorlton-cum-Hardy is not used at present.)

The dairies, which now amount to 115 in number, have been constantly supervised during the year, and for the most part have been kept in good sanitary condition.

The cowsheds have received a considerable amount of attention, and although the improvement in their sanitary condition has not been so rapid as one could wish, it is at all events steadily going on, and in a short time we may hope to see every cowshed in the district properly ventilated and lighted, with a cubic capacity of at least 800 cubic feet per cow, and with a hard cemented floor, permitting of thorough cleansing daily. This course appears to me to be absolutely necessary if the spread of tuberculosis amongst cattle is to be stopped, no more potent factors in its diffusion existing than overcrowding and polluted air. The present state of the cowsheds is as follows: 29 satisfactory, 25 under notice, 20 still to be dealt with.

The cowsheds of 12 farms have been brought up to the present standard of sanitation during the year, and 12 more farms, with 25 cowsheds, are under notice. Manchester water has been substituted for polluted pump water in four farms. In five others the water supply has been condemned by the County Analyst, and a purer supply is now called for by the Council. Most of the milk farms of the district have a good supply of Manchester water, 10 only remaining without, and of these, five are under notice as just mentioned.

There are 28 bakehouses in the district, but this number includes a few very small businesses for which the ordinary domestic ovens serve. They are all frequently inspected, and cleansing is called for when required. There are still nine cellar bakehouses with their floors considerably below the ground level—four in Withington, four in Chorlton-cum-Hardy, and one in Didsbury. These cellars are not satisfactory. Some of the ceilings being rather low and the ventilation being imperfect, the atmosphere becomes close and stifling after work has been carried on for a time, and there must necessarily be some deterioration of health among the bakers.

The slaughter-houses have been inspected weekly, or even more frequently when required. They are for the most part conducted in a satisfactory manner, and only one notice with respect to them has been required during the year.

Ashpits, etc.—The number of ashpits emptied during the year is as follows :—Ashpits with privies, 6,046 ; ashpits without privies, 10,351 ; movable receptacles, 20,181—total, 36,578 ; cesspools emptied, 76.

(A) Table of DEATHS during the year 1898 in the Urban Sanitary District of Withington, classified according to DISEASES, AGES, and LOCALITIES.

NAMES OF LOCALITIES	MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES								MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE																					
	At all Ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and up-wards		Smallpox	Scarlatina	Diphtheria	Membranous Croup	FEVERS					Cholera	Erysipelas	Measles	Whooping Cough	Diarrhea and Dysentery	Rheumatic Fever	Phthisis	Bronchitis, Pneumonia, and Pleurisy	Heart Disease	Influenza	Injuries	All other Diseases	TOTAL
													Typhus	Enteric or Typhoid	Continued	Relapsing	Puerperal													
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Withington	147	27	19	7	9	47	38	Under 5. 5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	5	7	...	...	7	...	..	...	27	46
Didsbury.....	95	17	7	3	5	31	32	Under 5. 5 upwds.	...	...	2	2	...	...	...	...	...	...	...	2	...	1	...	...	2	...	2	1	12	24
Chorlton-cum-Hardy	87	24	7	3	1	33	19	Under 5. 5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	3	1	...	7	...	...	1	19	31	
Burnage	27	9	1	1	1	9	6	Under 5. 5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	...	1	...	6	10	
Among persons admitted from the district into the Chorlton Union Workhouse.....	25	5	1	...	1	11	7	Under 5. 5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	5	6	
TOTALS	381	82	35	14	17	131	102	Under 5. 5 upwds.	...	...	2	2	...	...	...	...	...	...	...	2	5	12	1	...	19	...	3	2	69	117
*Deaths occurring outside the district among persons belonging thereto	6	...	2	2	1	1	...	Under 5. 5 upwds.	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
†Deaths occurring within the district among persons not belonging thereto :	603	32	10	7	25	330	199	Under 5. 5 upwds.	...	1	...	...	...	2	...	...	1	...	4	...	1	4	...	1	10	...	...	...	25	42

* Five deaths occurred in Monsall Hospital, and one in Cheshire by drowning. † In the Chorlton Union Workhouse.

(B) Table of POPULATION, BIRTHS and of NEW CASES OF INFECTIOUS SICKNESS coming to the knowledge of the Medical Officer of Health during the year 1898 in the Urban Sanitary District of Withington, classified according to DISEASES, AGES, and LOCALITIES.

NAMES OF LOCALITIES	POPULATION AT ALL AGES		Registered Births	Aged under 5 or over 5	NEW CASES OF SICKNESS IN EACH LOCALITY COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH											NUMBER OF SUCH CASES REMOVED FROM THEIR HOMES IN THE SEVERAL LOCALITIES FOR TREATMENT IN THE ISOLATION HOSPITAL AT MONSALL										
	Census, 1891	Estimated to middle of 1898			Smallpox	Scarlatina	Diphtheria	Membranous Croup	FEVERS					Cholera	Erysipelas	Smallpox	Scarlatina	Diphtheria	Membranous Croup	FEVERS					Cholera	Erysipelas
									Typhus	Enteric or Typhoid	Continued	Relapsing	Puerperal							Typhus	Enteric or Typhoid	Continued	Relapsing	Puerperal		
(a)	(b)	(c)	(d)	(e)	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11
Withington.....	10318	12408	225	Under 5. 5 upwds.	...	9 14	...	...	...	1 10	...	...	...	...	3	...	6 8	...	...	...	1 3	...	...	...	...	...
Didsbury.....	7176	8707	143	Under 5. 5 upwds.	...	6 29	6 5	2 ...	...	...	...	...	...	...	4	...	3 21	2 ...	...	...	7*	...	...	...	...	...
Chorlton-cum-Hardy	4741	6752	157	Under 5. 5 upwds.	...	2 10	4 6	...	...	1 2	...	...	2	...	3	...	1 1	1 1	...	...	1	...	...	...	...	...
Burnage	1603	2133	68	Under 5. 5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS	23838	30000	593	Under 5. 5 upwds.	...	17 53	10 12	2 ...	...	2 23	...	...	2	...	10	...	10 30	3 1	...	...	2 10	...	...	...	...	...

* Two of these cases of Enteric Fever were removed to the Chorlton Union Hospital.

